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FILE COVERS 1907 - 10 Nov 2008 VOL 149 ISS 20  
 FILE LAST UPDATED: 9 Nov 2008 (20081109/ED)

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```
=> s oxidation catalyst
    492084 OXIDATION
    820579 CATALYST
L1    1983 OXIDATION CATALYST
      (OXIDATION(W)CATALYST)
```

```
=> s l1 and tungsten
    210737 TUNGSTEN
L2    58 L1 AND TUNGSTEN
```

```
=> s l2 and phosphoric acid
    114184 PHOSPHORIC
    4705251 ACID
    104787 PHOSPHORIC ACID
      (PHOSPHORIC(W)ACID)
L3    1 L2 AND PHOSPHORIC ACID
```

```
=> d bib abs
```

L3 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN

AN 1987:578602 CAPLUS

DN 107:178602

OREF 107:28659a,28662a

TI Olefin oxidation catalyst system

IN Vasilevskis, Janis; De Deken, Jacques C.; Saxton, Robert J.; Wentrcek, Paul R.; Fellmann, Jere D.; Kipnis, Lyubov S.

PA Catalytica Associates, USA

SO PCT Int. Appl., 96 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 8701615	A1	19870326	WO 1986-US1950	19860918
	W: AU, BR, DK, FI, JP, KR, NO				
	RU: AT, BE, CH, DE, FR, GB, IT, LU, NL, SE				
	US 4720474	A	19880119	US 1985-779501	19850924
	US 4723041	A	19880202	US 1986-846554	19860331
	IN 168521	A1	19910420	IN 1986-CA651	19860828
	ZA 8606653	A	19870729	ZA 1986-6653	19860902
	AU 8663752	A	19870407	AU 1986-63752	19860918
	EP 238633	A1	19870930	EP 1986-906113	19860918
	R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE				
	BR 8606883	A	19871103	BR 1986-6883	19860918
	JP 63500923	T	19880407	JP 1986-504984	19860918
	IL 80091	A	19910630	IL 1986-80091	19860919
	CN 86106266	A	19870408	CN 1986-106266	19860923
	CN 1010010	B	19901017		
	CA 1268166	A1	19900424	CA 1986-518817	19860923
	CN 1046890	A	19901114	CN 1990-104249	19860923
	DK 8702623	A	19870522	DK 1987-2623	19870522
	FI 8702275	A	19870522	FI 1987-2275	19870522
	NO 8702167	A	19870715	NO 1987-2167	19870522
	US 4853357	A	19890801	US 1987-103442	19870930
PRAI	US 1985-779501	A	19850924		
	WO 1986-US1950	A	19860918		

OS CASREACT 107:178602

AB Olefins are oxidized to carbonyl compds. in the presence of O and a catalyst system comprising a polyoxoanion and [XxMaM'bM''cOz]-m (M, M', M'' = W, Mo, V, Nb, Ta, Re; X = B, Si, Ge, P, As, Se, Te, I, Co, Mn, Cu; a, m, z = 0; b, c = integer; x = 0 for isopolyoxoanions, >0 for heteropolyoxoanions; such that a + b + c ≥ 2), ≥1 Pd component, ≥1 redox-active metal selected from CuSO<sub>4</sub>, Cu(OAc)<sub>2</sub>, Cu(NO<sub>3</sub>)<sub>2</sub>, Fe(OAc)<sub>2</sub>, FeSO<sub>4</sub>, and MnSO<sub>4</sub>, and a ligand. Thus, 73.2 g NaVO<sub>3</sub> was dissolved in 380 mL H<sub>2</sub>O which had been heated to 90° forming a first solution, which was added to a 90° solution consisting of 120 mL H<sub>2</sub>O and 80.7 g Na<sub>2</sub>MoO<sub>4</sub>·2H<sub>2</sub>O. To this mixture, 50 mL of 85% H<sub>3</sub>PO<sub>4</sub> was added dropwise, the solution heated to 95° for 1 h, filtered through Celite, approx. 80 g K<sub>2</sub>SO<sub>4</sub> was added to the filtrate which had been cooled to room temperature, the solution stirred for 1-1 1/2 h, and the K<sub>9</sub>PMo<sub>6</sub>V<sub>6</sub>O<sub>40</sub> precipitate (I) was recrystd. from 0.25 M H<sub>2</sub>SO<sub>4</sub>. Li<sub>9</sub>PMo<sub>6</sub>V<sub>6</sub>O<sub>40</sub> was prepared from I by ion-exchange chromatog., and served as the source for PMo<sub>6</sub>V<sub>6</sub>O<sub>40</sub>-9 (II). 1-Hexene was oxidized in the presence of 15 mL H<sub>2</sub>O, 1.5 mL 1 normal H<sub>2</sub>SO<sub>4</sub>, 625 mg II, and a 1:5:10 molar ratio of Pd(CS<sub>3</sub>CO<sub>2</sub>)<sub>2</sub>-II-CuSO<sub>4</sub>·2H<sub>2</sub>O. The oxidation was accomplished at 85°/80 psig O<sub>2</sub> for 8 h producing 73.7 mol% 1-hexene conversion with 95.0 mol% selectivity to 2-hexanone, vs. 53.7 mol% and 90.8 mol% resp., for a control oxidation conducted without CuSO<sub>4</sub>.

=> s 12 and hydrogen sulfate salt  
 1096189 HYDROGEN  
 570848 SULFATE  
 865530 SALT  
 52 HYDROGEN SULFATE SALT  
 (HYDROGEN(W)SULFATE(W)SALT)  
 L4 0 L2 AND HYDROGEN SULFATE SALT

=> s 12 and quaternary ammonium salt  
 143300 QUATERNARY  
 433282 AMMONIUM  
 865530 SALT  
 10362 QUATERNARY AMMONIUM SALT  
 (QUATERNARY(W)AMMONIUM(W)SALT)  
 L5 0 L2 AND QUATERNARY AMMONIUM SALT

=> s 12 and boric acid  
 46238 BORIC  
 4705251 ACID  
 43251 BORIC ACID  
 (BORIC(W)ACID)  
 L6 1 L2 AND BORIC ACID

=> d bib abs

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN  
 AN 2000:351422 CAPLUS  
 DN 132:349279  
 TI Oxidation catalyst and process for producing oxole  
 compound with the same  
 IN Ito, Masumi; Sueyoshi, Tsuyoshi; Nakajima, Yasuko; Koyasu, Yukio  
 PA Mitsubishi Chemical Corporation, Japan  
 SO PCT Int. Appl., 23 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000029104	A1	20000525	WO 1999-JP6362	19991115
	W: CA, CN, IN, KR, SG, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 2000210562	A	20000802	JP 1999-323671	19991115
PRAI	JP 1998-324732	A	19981116		
AB	Alkadienes are oxidized to oxoles in the presence of catalysts, WxAl-xOy, wherein A represents $\geq 1$ element selected from alkali metals, Cr, Mo, Group 13 elements, and Group 15 elements other than Sb; $0 < x < 1$ ; and $y \neq 0$ , determined by the oxidation states of the other elements. Thus, 1,3-butadiene (I) was oxidized at 438° and 1500 h-1 over W0.75B0.25Ox to prepare furan at 38% selectivity at 1 conversion 4.5%.				
RE.CNT	12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT				

=> s multicomponent oxidation catalyst  
 42232 MULTICOMPONENT  
 492084 OXIDATION  
 820579 CATALYST  
 L7 0 MULTICOMPONENT OXIDATION CATALYST  
 (MULTICOMPONENT(W)OXIDATION(W)CATALYST)

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FULL ESTIMATED COST	43.10	43.31
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-1.60	-1.60

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